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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,214	09/15/2003	Shyh Yuan Shyu	13933 B	2366

7590 07/14/2005

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EXAMINER	
BUTLER, PATRICK NEAL	
ART UNIT	**PAPER NUMBER**
1732	

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/663,214	SHYU, SHYH YUAN	
	Examiner	Art Unit	
	Patrick Butler	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *15 September 2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 and 6-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Langlands et al. (US Patent No. 4,234,533).

With respect to Claim 1, Langlands teaches manufacturing colored laminates (plates) (see col. 6, lines 13-19 and col. 2, lines 30-42).

Langlands teaches a mold device having spaced upper and bottom panels (see Fig. 1, Ref. No. 10, 11), and a gasket disposed between outer peripheral portions of said panels (see Fig. 1, Ref. No. 12, 13) to form a chamber between said panels and said gasket.

Langlands teaches disengaging a portion of said gasket from said panels (See Fig. 1, Ref. No. 13), to form an opening between said panels.

Langlands teaches filling a solution into said chamber of said mold device via said opening of said mold device (see Col. 2, lines 30-42 and opening created by Ref. No. 13 of Fig. 1), and said solution optionally includes resin and vinyl polymers (PVC) according to the desired properties for the laminate (see Col. 3, lines 35-68).

Langlands teaches filling colors, and/or other bodies like wire mesh, cloth, metal, or other decorative means (additives) (see Col. 6, lines 13-19) into said chamber of said

mold device via said opening of said mold device (see opening created by Ref. No. 13 of Fig. 1). Langlands also teaches adding cobalt naphthenate (see Col. 6, lines 8-12). It would be inherent that there would be some level of distribution of these materials within the system.

Langlands teaches completing the seal to form an envelope (engaging said portion of said gasket into said panels, to enclose said opening of said mold device) (see Col. 2, lines 48-52).

Langlands teaches that trapped air escapes (air is removed from additive materials and said solution) from the envelope (said mold device)(see Col. 2, lines 48-52).

Langlands teaches that preheating the sheets (mold device) is known (Col. 1, lines 59-64).

Langlands teaches heating the material and outer sheets (see col. 3, lines 40-42). It would be inherent that it would be a color plate to the extent that the final molded article would have a color and planar structure (plate).

With respect to Claim 2, Langlands teaches an example of tape and a wedge (gasket) on the entire perimeter of two face-to-face sheets (panels) spaced apart. The tape and wedge are engaged, and then pressure is applied to the top of the glass (a pressing machine). The table (machine and additive materials and solution and mold device) is made horizontal. The liquid is allowed to fill the entire intersheet volume (removing air from additive materials and said solution and said mold device)(see Col. 5, lines 48-69 through Col. 6, lines 1-7).

With respect to Claim 3, the examiner interprets Claim 3 to include Claim 2 and further comprise engaging a pin between the upper panel and gasket. No additional step is specifically claimed. Particularly, no additional step of air flowing through the pin is claimed. Air is simply allowed/unrestrained. Langlands teaches the use of a funnel, which is a cone connected to a pin, to insert deliver the liquid between the sheets (see Col. 5, lines 48-69 through Col. 6, lines 1-7).

With respect to Claim 4, Langlands teaches that the end of the funnel (pin) is disengaged from the seal (see Col. 5, lines 48-69 through Col. 6, lines 1-7).

With respect to Claim 6, Langlands teaches that it is known to apply a vinyl polymer between two pieces of glass (see col. 1, lines 27-39). The previously made colored plate would act as one of the pieces of glass, and the vinyl would act as the pattern (see col. 1, lines 27-39). Moreover, it could contain silver (see col. 6, lines 58-69), which would be a reflective pattern.

With respect to Claim 7, Langlands teaches that the outer covering (interpreted to mean coating relative to the color plate) of the color plate would be the vinyl polymer. The finished product is a laminate (plate product) (see col. 1, lines 27-39).

With respect to Claim 8, Langlands teaches that the covering and plate are heated to bond the vinyl sheet to the glass (secure said polymer outer covering and said color plate together to form a plate product)(see col. 1, lines 27-39).

With respect to Claim 9, Langlands's method of filling material in between two sheets (see rejection for claim 1 above) would be used to mold the vinyl polymer

covering taught to be known (see col. 1, lines 27-39), which would form a polymer coating on the outer side of the color plate to compose a final plate product.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langlands et al. (US Patent No. 4,234,533) as applied to claims 1-2 above, and further in view of Bayer (US Patent No. 4,299,639).

With respect to claim 3, Langlands teaches a method of manufacturing colored plates as previously described.

Bayer teaches filling material in between two parallel layers (see col. 1, lines 7-14). Bayer teaches removing air from between the two layers via a path made by a pin inserted between the layers (see Fig. 1, Ref. 8a).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Bayer's pin for removing air with Langlands's method of manufacturing colored plates because it would have allowed air to be drawn out of the space between the layers and because it would reduce the likelihood of outward bulges of the pages and/or of development of air pockets between the panes (see col. 5, lines 6-11). Moreover, Bayer's pins provide for rapid evacuation of the air within the

chamber, which also enables faster charging of the solution into the chamber, rather than having to wait for diffusion of gas out of the air-permeable tape/seal (gasket).

With respect to Claim 4, Bayer teaches that the tube (pin) is removed from between the layers (see Col. 6, lines 62-64).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Langlands et al. (US Patent No. 4,234,533) as applied to claim 1 above, and further in view of Renfrew (US Patent No. 2,035,190).

With respect to claim 5, in view of the specification (see page 5, lines 5-7; page 8, lines 12-17; and Fig. 6), the examiner interprets preheating to mean the first portion of heating that the composition of plates, additives, and solution undergo.

Langlands teaches a method of manufacturing colored plates as previously described. Particularly, Langlands teaches heating the material (solution and additives) and outer sheets (see col. 3, lines 40-42). Langlands does not teach heating water and engaging the material (solution and additives) and outer sheets into hot water. Langlands has to remove trapped air (air is removed from additive materials and said solution) from the envelope (said mold device)(see Col. 2, lines 48-52).

Renfrew teaches a method of removing bubbles within a material (see drawing) between sheets (see col. 1, lines 21-24) utilizing a bath that has been heated to an elevated (hot) temperature and submerging the material between sheets into the bath (see col. 1, lines 50 through col. 2, line 4 and col. 2, lines 42-50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Renfrew's method of heating the solution, additives,

and plates with Langlands's method of manufacturing colored plates because it would have allowed effective practice of heating called for by Langlands, because the temperature would have been insufficient to cause decomposition or loss of thermoplasticity (see Renfrew, col. 2, lines 42-50), and because it would have aided in solving the common problem of removing air bubbles (see Renfrew, col. 2, lines 42-50 and Langlands Col. 2, lines 48-52) .

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick Butler whose telephone number is 571-272-8517. The examiner can normally be reached on Monday through Friday 7:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on 571-272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick Butler PB
Examiner
Art Unit 1732

MICHAEL P. COLAIANNI
SUPERVISORY PATENT EXAMINER